

REMARKS

Claims 19 and 24 have been canceled. Claims 20-22, 15, and 27-28 have been amended. No new matter has been added. Claims 2-6, 8, 9, 11, 14, 17-18, 20-23 and 25-28 are pending.

35 U.S.C. § 102 Claim Rejections

Zhao et al. (US 6,514,602)

Claims 2-6, 8, 9, 11, 14 and 17-28 were rejected as being anticipated by Zhao et al. (US 6,514,602; hereinafter "Zhao"). The instant rejection has been obviated by appropriate amendment.

Newly amended claim 21 recites a biodegradable film formed from a stretched precursor film comprising a blended mixture of a biodegradable polymer and a water soluble polymer, wherein the biodegradable film comprises from about 70% to about 95% biodegradable polymer by weight of the biodegradable film. Moreover, the film is pre-stretched to about 100 to about 500 times of its original length while in contact with an aqueous solution. Zhao fails to teach or suggest a blended precursor film that is stretched from about 100 to about 500 times its original length when in contact with an aqueous solution.

Applicants claim a film that is stretched in contact with an aqueous solution. The claimed precursor film is processed to produce a biodegradable film that has the desired characteristics of porosity, breathability, and ductility. (Page 13). One method of processing the film to get the desired characteristics is to stretch the film. Preferably, the film is then stretched from about 100 to about 500 percent of its original length. (Page 13). In the preferred method, the film is stretched while in contact with a solvent, such as an aqueous solution. Water acts as a surface-active media during the stretching process. The contact with water during the stretching process can reduce the surface energy between the film material and environment, which can lower the stress required to produce a stretched film with a specified draw ratio. It can also reduce the probability of a film failure during the stretching process as the precursor film will

be experiencing lower stresses during stretching. In addition, stretching in contact with water can accelerate the dissolution and etching of the water soluble component of the film by plastically deforming the water soluble component while it is in contact with the solvent. Stretching in contact with the solvent increases the breathability of the film, improves its softness and reduces film thickness. (Page 14).

Zhao fails to teach or suggest a biodegradable film according to claim 21 wherein the stretched precursor film is stretched while in contact with an aqueous solution. The Examiner admits that Zhao does not teach that the film was stretched while in contact with an aqueous solution. (Office Action dated May 25, 2007, p. 4). Applicants disagree with the Examiner that because Zhao discloses a layered film that the film must have been stretched, and if it was indeed stretched, that it was necessarily stretched while in contact with an aqueous solution. As discussed above, stretching the film while in contact with an aqueous solution is one manner of processing the film. (Page 13). Stretching the film in this manner increases its desirable properties. Zhao does not disclose this manner of stretching.

The Examiner asserts that Zhao discloses a stretched film because it discloses that it would be preferable to stretch the film (col. 3, ll. 20-35). However, there are many different method of stretching and processing film and Zhao does not disclose the claimed invention. Therefore, Applicants request that the Examiner withdraw the rejection of claim 21.

Claims 2-6, 8, 9, 11, 14 and 17-18, 20, and 22-23 depend from claim 21 and therefore, are allowable for the reasons stated above. Moreover, claims 25-28 also recite a stretched precursor film that is stretched while in contact with an aqueous solution, as described above. For the instant reasons, Zhao does not teach each and every element of the claimed invention. Applicants request that the instant rejections be withdrawn.

Wu (U.S. Patent No. 5,200,247)

Claims 2-6, 8, 9, 11, 14 and 17-22, 24, and 27-28 were rejected as being anticipated by Wu et al. (US 5,200,247; hereinafter "Wu"). The instant rejection has been obviated by appropriate amendment.

Independent Claims 21, 27, and 28 have been amended to recite a stretched precursor film that is processed by stretching it while it is in contact with an aqueous film, as recited in original claims 27 and 24. The Examiner has admitted that this limitation is not literally found in Wu. However, the Examiner does assert that because the prior art discloses an identical film structure, the Wu reference is deemed to anticipate the claimed limitation. (Office Action dated May 25, 2007, p. 10). Applicants respectfully disagree. After the blended polymer mixture has been produced, it may then be formed into the precursor film using a variety of techniques. (Page 12). One technique of processing the film, as claimed by Applicants, is to stretch the film while in contact with an aqueous solvent. (Page 14). Wu does not disclose this technique of processing a film, regardless of its original composition. Wu does not teach each and every limitation of the claimed invention. Therefore, Applicants request that the Examiner withdraw the instant rejection to claims 2-6, 8, 9, 11, 14 and 17-18, 20-22, and 27-28 in view of Wu.

Patnode (U.S. Patent No. 5,508,101)

Claims 2-6, 8, 9, 11, 14 and 17-19, 22, 24, and 27 were rejected as being anticipated by Patnode et al. (US 5,508,101; hereinafter "Patnode"). The instant rejection has been obviated by appropriate amendment.

Independent Claims 21 and 27 have been amended to recite a stretched precursor film that is processed by stretching it while it is in contact with an aqueous film, as recited in original claims 27 and 24. The Examiner has admitted that this limitation is not literally found in Patnode. However, the Examiner does assert that because the prior art discloses an identical film structure, the Patnode reference is deemed to anticipate the claimed limitation.

(Office Action dated May 25, 2007, p. 13-14). Applicants respectfully disagree. After the blended polymer mixture has been produced, it may then be formed into the precursor film using a variety of techniques. (Page 12). One technique of processing the film, as claimed by Applicants, is to stretch the film while in contact with an aqueous solvent. (Page 14). Patnode does not disclose this technique of processing a film, regardless of its original composition. Patnode does not teach each and every limitation of the claimed invention. Therefore, Applicants request that the Examiner withdraw the instant rejection to claims 2-6, 8, 9, 11, 14 and 17-19, 22, 24, and 27 in view of Patnode.

35 U.S.C. § 103 Claim Rejections

Zhao or Wu or Patnode in view of Odorzynski

Claims 2-6, 8, 9, 11, 14, and 17-28 stand rejected as being obvious over Zhao or Wu or Patnode in view of Odorzynski (U.S. Patent No. 5,549,775, hereinafter "Odorzynski"). These rejections have been obviated by appropriate amendment. The Examiner asserts that if either Zhao or Wu or Patnode are deemed not to teach the claimed water vapor transmission rates, that Odorzynski discloses that it was known in the disposable diaper art to form a vapor permeable microporous film to be used in a disposable diaper wherein the vapor permeable film has a WVTRE of at least about 2500 g/m²/24 hours. (Office Action dated May 25, 2007, pp. 14-16. Odorzynski, however, does not teach a technique of processing a formed film by stretching it in contact with an aqueous solution. Because this additional reference does not remedy either the deficiencies of Zhao or Wu, Applicants request that this rejection be withdrawn. It would not have been obvious to one of skill in the art to modify the cited references to meet the limitations of the claimed invention. The claims, as amended are patentable.

Wu in view of Zhao

Claims 23, 25, and 26 stand rejected as being obvious over Wu in view of Zhao. This rejection has been obviated by appropriate amendment. The Examiner asserts that if Wu is deemed not to teach that the water soluble polymer is polyethylene oxide, polyethylene glycol, or a copolymer thereof, that Zhao remedies this deficiency. (Office Action, dated May 25, 2007, p. 16). As discussed above neither Zhao nor Wu teach each and every element of the claimed invention, namely that the formed precursor film be stretched while in contact with an aqueous solution. Their combination does not remedy this deficiency. It would not have been obvious to one of skill in the art to modify the cited references to meet the limitations of the claimed invention. Thus the claims, as amended are patentable. Applicants request that this rejection be withdrawn.

Wu in view of Zhao and further in view of Odorzynski

Claim 26 stands rejected as being obvious over Wu in view of Zhao and further in view of Odorzynski. As discussed above, this combination fails to teach each and every element of the claimed invention. Applicants request that this rejection with withdrawn.

SUMMARY

It is believed that this application is now in condition for allowance. Such action is respectfully requested. If for any reason the Examiner feels that a discussion would be helpful, it is respectfully requested that the Examiner contact the undersigned agent directly at (312)-321-4787.

Respectfully submitted,



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